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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,072

02/13/2006

Masaki Ukai

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EXAMINER

REDDY, KARUNA P

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

01/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/568,072

Applicant(s)

UKAI ET AL.

Examiner

Karuna P. Reddy

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,7,8 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,7,8 and 10-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to applicant's request to resume examination, after an earlier request for suspension of action, in the document of 12/10/2007. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/7/2007 has been entered. Claims 4-6 and 9 are cancelled and claims 1-3, 7-8 and 10-16 are amended. Claims 1-3, 7-8, 10-16 are currently pending in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. Claims 1-3 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Bullman (US 3, 772, 237).

Bullman discloses a vinyl paste sealant which possesses excellent physical properties and adhesion to variety of substrates (column 1, lines 13-15).

Many sealant formulations are based upon vinyl pastes such as polyvinyl chloride plastisols, plastigels, organosols and organogels (column 1, lines 52-54). The use of vinyl chloride resins, which term includes vinyl chloride-vinyl acetate copolymers, in vinyl paste sealants is very well known (column 1, lines 57-60). The dispersion resin which is employable is polyvinyl chloride resin or vinyl chloride-vinyl acetate copolymer resin (column 3, lines 10-13). The plasticizer that is employed may be any of the usual plasticizers for vinyl pastes (column 4, lines 46-47). Particular plasticizer that one employs is dependent upon the properties one seeks in the sealant insofar as temperature performance characteristics, viscosity or rheology characteristics etc (column 4, lines 55-59). See table (column 6) wherein the vinyl paste sealant comprises vinyl dispersion resin and plasticizer. The order of addition of the ingredients is not critical to the practice of this invention (column 6, lines 63-64). Though the above description has been specific with respect to plastisol formulation, the sealant formulations can be made in the form of an organosol, a plastigel or an organogel. To convert the plastisol to an organosol, one may add the conventional volatile liquids which are known in the art to effect such conversion (column 7, lines 4-11). To convert the plastisol and organosol formulations to a plastigel or an organogel respectively, one simply adds conventional gelling agents used for this purpose to obtain the desired viscosity characteristics which one expects of a plastigel or an organogel (column 7, lines 25-34). Such gelling agents may be employed in amounts which have been described with respect to the asbestos additive

(column 7, lines 40-42). In the embodiment, wherein a plastigel is formed by addition of gelling agent to the plastisol, there is essentially two packs one containing plastisol and the other containing gelling agent.

Therefore, Bullman anticipates the present claims.

Claim Rejections - 35 USC § 102/103

4. Claims 10-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bullman (US 3, 772, 237).

The discussion with respect to Bullman in paragraph 3 is incorporated here by reference.

Bullman is silent with respect to gelling time and sprayable viscosity.

However, in light of the fact that prior art teaches / discloses essentially the same composition as that of the claimed, one of ordinary skill in the art would have a reasonable basis to believe that the composition of prior art exhibits essentially the same properties i.e. gels in 30 sec to 60 minutes and has a sprayable viscosity. Since PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobviousness difference. See *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

Even if properties of the composition of instant claims and prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make composition having the claimed properties because it

appears that the references generically embrace the claimed composition and the person of ordinary skill in the art would have expected all embodiments of the reference to work. Applicants have not demonstrated that the differences, if any, between the claimed composition and the composition of prior art give rise to unexpected results.

Claim Rejections - 35 USC § 103

5. Claim 1-3, 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takegawa et al (US 4,386,992).

Takegawa et al disclose a two-part adhesive composition comprising an aqueous emulsion adhesive and a gelling agent (abstract). The aqueous emulsion adhesive usually comprises an emulsion of a polymer in water and optionally a plasticizer (column 1, lines 22-24). Plasticizers can be phthalic acid esters (column 4, lines 30-31). The aqueous emulsion adhesives include polyacrylate, acrylate copolymer, polyvinyl chloride, vinylidene chloride copolymer (column 4, line 14-18). The gelling agent which can gelate aqueous emulsion adhesive includes various surface active agents, metal hydroxides, organic acids, organic acid salts, water-soluble organic solvents (column 2, lines 35-41). Suitable examples of organic solvents are alcohols, ketones such as acetone and methyl ethyl ketone (column 3, lines 21-24) which read on the gelling agent of claim 3 and component of claim 2 that swells the thermoplastic

resin of claim 1. The ratio of aqueous adhesive:gelling agent is 1:0.01 to 1:100 (column 4, lines 8-11) and overlaps with the ratio in claim 12. In example 1, an anionic type acrylic polymer and the gelling agent are applied with a spray gun (column 5, lines 30-37) and read on the composition that has a sprayable viscosity of claim 11.

Takegawa et al fails to disclose a two-pack comprising the resin of present claims; is silent with respect to gelation at room temperature; and for use in an automobile manufacturing line.

However, while Takegawa et al's examples are directed to polyacrylates and polyurethanes, it is noted that exemplification is not a requirement for a proper 103 rejection. Given that, attention is drawn to Takegawa's disclosure (column 4, line 14-18) which teaches emulsions containing as main solid components acrylate copolymer, polyacrylate, polyvinyl chloride and vinylidene chloride copolymer. The polyacrylates are generic to core-shell and gradient type acrylic resins. Therefore, it would have been obvious to use the resins mentioned above in the two pack curable composition of Takegawa et al.

With respect to gelation at room temperature, in light of the fact that prior art teaches / discloses essentially the same composition as that claimed, one of ordinary skill in the art would have a reasonable basis to believe that two part composition of Takegawa et al comprising an emulsion adhesive and a gelling agent intrinsically possesses the same property i.e. gels at room temperature in

30 sec. to 60 minutes. Since PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobviousness difference. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

With respect to use in automobile manufacturing line, it is the intended use of a known two pack composition of Takegawa et al.

6. Claims 7-8 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takegawa (US 4,386,992) in view of Nakano et al (US 5,166,229).

The discussion with respect to Takegawa et al in paragraph 5 is incorporated here in by reference.

Takegawa et al is silent with respect to a) thermosetting epoxy resin, latent curing agent and viscosity; and b) utilization of composition in spot/body welding step of an automobile assembly line.

With respect to a) Nakano et al teach that epoxy resins are widely used as an adhesive or paint composition because of their adhesion to various materials with excellent mechanical properties, electrical properties and chemical resistance (column 1, lines 16-19). The composition is incorporated with a latent curing agent (column 3, lines 14-15) to accelerate curing of resins. The composition has preferably a viscosity of not less than 500 poises (column 3, lines 12-13) and reads on the viscosity of greater than 50 Pas of claim 13. Therefore, it would have been obvious to one skilled in the art at the time

invention was made to add thermosetting epoxy resins and latent curing agent to the adhesive composition of Takegawa et al, for above mentioned advantages.

With respect to b) Nakano et al teach that the epoxy resin composition has excellent shower resistance and wiping properties and is useful as an adhesive, particularly as a structural adhesive in an assembly line of automobiles (abstract). The composition can be used in spot welding in the assembly line of automobiles (column 3, lines 34-35) and reads on claims 14-16. Therefore, it would have been obvious to apply the composition of Takegawa et al in the spot welding step because Nakano et al have proven successfully the process of applying resin composition comprising a gelling agent in the spot welding step of assembly line of automobiles and one of ordinary skill in the art would have expected the process to work for the composition of Takegawa et al, motivated by expectation of success.

7. Claims 7-8 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bullman (US 3, 772, 237) in view of Nakano et al (US 5,166,229).

The discussion with respect to Bullman in paragraph 3 is incorporated here in by reference.

Bullman is silent with respect to a) thermosetting epoxy resin, latent curing agent and viscosity; and b) utilization of composition in spot/body welding step of an automobile assembly line.

With respect to a) Nakano et al teach that epoxy resins are widely used as an adhesive or paint composition because of their adhesion to various materials with excellent mechanical properties, electrical properties and chemical resistance (column 1, lines 16-19). The composition is incorporated with a latent curing agent (column 3, lines 14-15) to accelerate curing of resins. The composition has preferably a viscosity of not less than 500 poises (column 3, lines 12-13) and reads on the viscosity of greater than 50 Pas of claim 13. Therefore, it would have been obvious to one skilled in the art at the time invention was made to add thermosetting epoxy resins and latent curing agent to the sealant composition of Bullman, for above mentioned advantages.

With respect to b) Nakano et al teach that the epoxy resin composition has excellent shower resistance and wiping properties and is useful as an adhesive, particularly as a structural adhesive in an assembly line of automobiles (abstract). The composition can be used in spot welding in the assembly line of automobiles (column 3, lines 34-35) and reads on claims 14-16. Therefore, it would have been obvious to apply the composition of Bullman in the spot welding step because Nakano et al have proven successfully the process of applying resin composition comprising a gelling agent in the spot welding step of assembly line of automobiles and one of ordinary skill in the art would have expected the process to work for the sealant composition of Bullman, motivated by expectation of success.

Response to Arguments

8. Applicant's arguments with respect to rejection of claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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